Deploying CHP in California and the Nation

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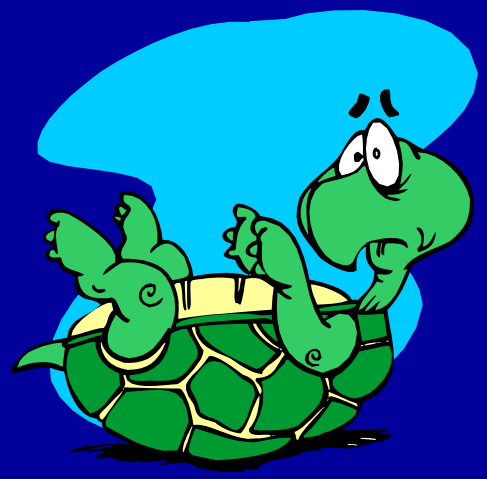
Effective Deployment of CHP Needs Clear Direction from Policymakers

The energy policy California has right now is a little like the turtle on the fence post. We know it didn't get there by itself, we're not quite sure who put it there or why, and we know it can't get down by itself.

Senator Debra Bowen
Chair, Senate Energy Committee



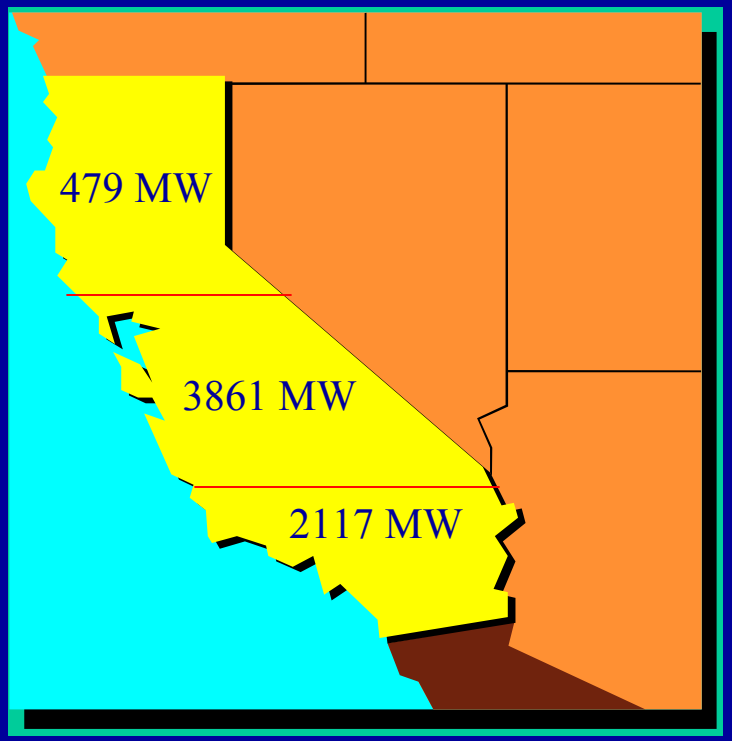
CHP is an Important Piece of the National Energy Picture...

CHP accounts for more than 52 gigawatts of capacity in the United States.

<u>Heavy Industry States Have the Most CHP</u>

Texas	(10000 MW)
California	(6500 MW)
New York	(5100 MW)
Louisiana	(3500 MW)
New Jersey	(3500 MW)

CHP Can be Found in All Parts of California

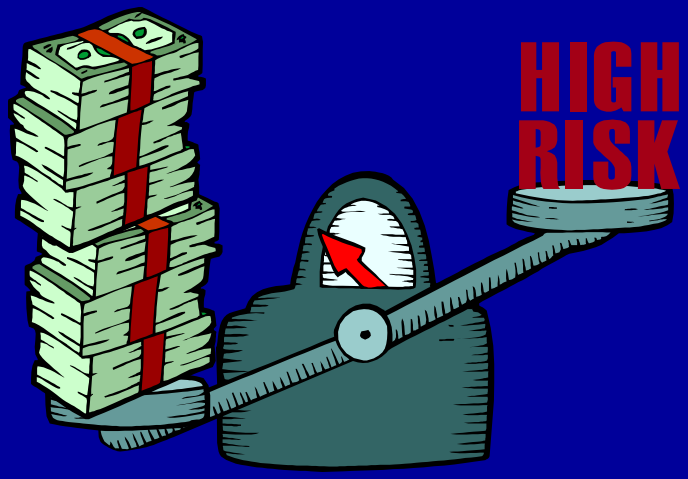


- Highest concentration of CHP found in areas with heavy oil production and refinery operations.
  - Kern County accounts for 30% of total.
  - Los Angeles and Contra Costa Counties are second and third.
- Half of all CHP projects located in Southern California.

Source: Onsite Sycom Energy Report, Market Assessment of Combined Heat and Power in the State of California, December 1999.

So Why Isn't There More Deployment of CHP?

- Numerous Potential Benefits of CHP
  - Greater Efficiencies
  - Lower Emissions
  - Power Quality
  - Reduced Line Losses
- State Policies Generally Reflect a Preference for DG
  - CHP is emissions friendly.
  - CHP adds to generation capacity without central station power plants.



Prospects for effective CHP deployment depend upon removing regulatory, institutional, and business-related barriers.

General Barriers to Effective CHP Deployment

- Lack of standardized interconnection rules.
- Standby charges.
- Stranded assets and exit fees.
- Air quality rules and potential misuse of output-based standards.
- Siting regulations.
- Financial barriers.

Potential Barriers to Effective CHP Deployment in California

- Exit Fees
  - CPUC will consider three proposed decisions on March 13.
  - ALJ version would adopt a settlement agreement and exempt 250-300 MW of load on an annual basis from all but a 0.7 cents per kilowatt hour surcharge.
  - Lynch version rejects settlement and allows for 200 MW exemption for net metering customers only.
  - Peevey/Kennedy version adopts aspects of both agreements, full exemptions for net metering and "clean" DG less than 1 MW, 3000 MW limit on exemption for DWR contract costs.
  - Potential Barrier: Too much of an exit fee makes DG deployment uneconomic.

- Standby Charges
  - CPUC standby rate policy decision issued July 2001.
  - SB28X (Sher - 2001-02 session) provides exemption from standby charges for DG-CHP installed by June 2003 through 2011. SB46 (Alpert) would extend operational date to be eligible for the exemption by two years.
  - Interim tariffs in place until utility General Rate Cases are resolved this year.
  - CPUC considering extending exemption date.
  - Potential Barrier: Current rate design does not provide incentive to deploy DG.

And More Potential Barriers...

- CPUC DG Policy Decision
  - CPUC policy decision adopted February 27.
  - Utility ownership issue resolved.
  - Evidentiary record developed just prior to energy crisis, which raised questions regarding its relevance.
  - Potential Barrier: Decision does not provide much incentive for utilities to embrace deployment of DG. DG will not be successfully deployed without utility incentive to do so.
- Net Metering Issues
  - AB58 extended indefinitely the 1 MW threshold to qualify for net metering for solar and wind projects.
  - All net metering projects that become operational can no longer bypass public purpose surcharge. Bypass of exit fees will soon be determined.
  - Potential Barrier: Considerable focus on net metering policies takes away from focus on CHP in general. Total amount of megawatts associated with net metering is small compared to CHP.

And Even More Potential Barriers...

- Utility Procurement Activities
  - CPUC decision encourages utilities to consider DG in their respective utility procurement programs.
  - Potential Barrier: No direction given about how utilities should consider DG and no incentive provided to truly encourage DG deployment.
- Interconnection Rules
  - Rule 21 effort promotes standardized interconnection rules in California.
  - Publicly-owned utilities not subject to rule although some are using it.
  - Monthly Rule 21 Working Group meetings provide a forum to address issues.
  - FERC interconnection ANOPR cause for concern as state jurisdiction is being challenged.
  - Potential Barrier: DG industry sometimes frustrated by utility ability to delay interconnection approval or require costly equipment before authorizing approval.

So What Can You Do?

- Know the Rules of the Game
  - Rules Vary Greatly from State to State
  - Be selective in terms of where you choose to do business.
    - Very expensive to cover all bases in all areas.
- Lobby State and Federal Legislatures to Promote CHP.
  - Expensive but potentially effective when partnering with other groups.
  - CHP operations not funded by ratepayers and therefore expensive to lobby.
- Be consistent about promoting R&D CHP efforts.
  - Research must respond to direction of environmental regulation.

Some Final Observations

- CHP is a critical piece of the energy solution in California and the nation.
- With merchant generation a major uncertainty, Industry stakeholders, utilities, regulators, and policymakers must work toward the effective deployment of CHP.
- R&D efforts must continue despite growing frustration with barrier removal.